

TRANSLATION

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 2003P17138WO	FOR FURTHER ACTION	See Form PCT/IPEA/416
International application No. PCT/EP2004/052657	International filing date (<i>day/month/year</i>) 25.10.2004	Priority date (<i>day/month/year</i>) 12.11.2003
International Patent Classification (IPC) or national classification and IPC H04Q7/38		
Applicant SIEMENS AKTIENGESELLSCHAFT		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>8</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (<i>sent to the applicant and to the International Bureau</i>) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (<i>sent to the International Bureau only</i>) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																										
<p>4. This report contains indications relating to the following items:</p> <table><tr><td><input checked="" type="checkbox"/></td><td>Box No. I</td><td>Basis of the report</td></tr><tr><td><input type="checkbox"/></td><td>Box No. II</td><td>Priority</td></tr><tr><td><input type="checkbox"/></td><td>Box No. III</td><td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td></tr><tr><td><input type="checkbox"/></td><td>Box No. IV</td><td>Lack of unity of invention</td></tr><tr><td><input checked="" type="checkbox"/></td><td>Box No. V</td><td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VI</td><td>Certain documents cited</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VII</td><td>Certain defects in the international application</td></tr><tr><td><input type="checkbox"/></td><td>Box No. VIII</td><td>Certain observations on the international application</td></tr></table>			<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report																									
Name and mailing address of the IPEA/EP	Authorized officer																									
Facsimile No.	Telephone No.																									

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Box No. I	Basis of the report
1.	<p>With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.</p> <p><input type="checkbox"/> This report is based on translations from the original language into the following language _____, which is the language of a translation furnished for the purposes of:</p> <p><input type="checkbox"/> international search (Rule 12.3 and 23.1(b))</p> <p><input type="checkbox"/> publication of the international application (Rule 12.4)</p> <p><input type="checkbox"/> international preliminary examination (Rule 55.2 and/or 55.3)</p> <p>2. With regard to the elements of the international application, this report is based on <i>(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)</i>:</p> <p><input type="checkbox"/> the international application as originally filed/furnished</p> <p><input checked="" type="checkbox"/> the description:</p> <p>pages <u>1-11</u> _____ as originally filed/furnished</p> <p>pages* _____ received by this Authority on _____</p> <p>pages* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the claims:</p> <p>nos. <u>1-10</u> _____ as originally filed/furnished</p> <p>nos.* _____ as amended (together with any statement) under Article 19</p> <p>nos.* _____ received by this Authority on _____</p> <p>nos.* _____ received by this Authority on _____</p> <p><input checked="" type="checkbox"/> the drawings:</p> <p>sheets <u>1/1</u> _____ as originally filed/furnished</p> <p>sheets* _____ received by this Authority on _____</p> <p>sheets* _____ received by this Authority on _____</p> <p><input type="checkbox"/> a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.</p>
3.	<p><input type="checkbox"/> The amendments have resulted in the cancellation of:</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (<i>specify</i>): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (<i>specify</i>): _____</p>
4.	<p><input type="checkbox"/> This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).</p> <p><input type="checkbox"/> the description, pages _____</p> <p><input type="checkbox"/> the claims, nos. _____</p> <p><input type="checkbox"/> the drawings, sheets/figs _____</p> <p><input type="checkbox"/> the sequence listing (<i>specify</i>): _____</p> <p><input type="checkbox"/> any table(s) related to sequence listing (<i>specify</i>): _____</p>

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement																					
1. Statement	<table><tr><td rowspan="2">Novelty (N)</td><td>Claims</td><td></td><td>YES</td></tr><tr><td>Claims</td><td>1, 3, 5, 6, 8, 10</td><td>NO</td></tr><tr><td rowspan="2">Inventive step (IS)</td><td>Claims</td><td></td><td>YES</td></tr><tr><td>Claims</td><td>1-10</td><td>NO</td></tr><tr><td rowspan="2">Industrial applicability (IA)</td><td>Claims</td><td>1-10</td><td>YES</td></tr><tr><td>Claims</td><td></td><td>NO</td></tr></table>	Novelty (N)	Claims		YES	Claims	1, 3, 5, 6, 8, 10	NO	Inventive step (IS)	Claims		YES	Claims	1-10	NO	Industrial applicability (IA)	Claims	1-10	YES	Claims		NO
Novelty (N)	Claims			YES																		
	Claims	1, 3, 5, 6, 8, 10	NO																			
Inventive step (IS)	Claims		YES																			
	Claims	1-10	NO																			
Industrial applicability (IA)	Claims	1-10	YES																			
	Claims		NO																			
2. Citations and explanations (Rule 70.7)	<p>This report makes reference to the following documents:</p> <p>D1: 3GPP "Technical Specification Group (TSG) RAN 3; Handovers for real-time services from PS domain; (Release 4)"; 3GPP TR25.936 V4.0.1; 12-2001; pages 1-34; XP014005123</p> <p>D2: WO 01/30107</p> <p>D3: Ericsson: "PS Handover in A/Gb mode Signalling"; 3GPP TSG GERAN/SA2 meeting on A/Gb evolution, Tdoc AHAGB-043; 22-23 October 2002; XP002318271</p> <p><u>A. Reasoned statement</u></p> <p>1. Document D1 (cf., in particular, page 10, paragraph 6.1.1 - page 14, paragraph 1.1.1.1; page 19, paragraph 6.2.2 - page 22, paragraph 6.2.2.2; figures 1, 2, 3, 4, 10, 11, 12, 14) discloses, in accordance with all the features of claim 1, a method for distributing and routing data packets during handover of a mobile transmission/reception station from a first radio cell to a second radio cell within a mobile communications network, in particular during a packet-mediated cell handover</p>																					

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	<p>(see, in particular, title [Handover for real time services from a PS domain]; page 10 paragraph 6.1.1 [...reuse of the release 99 Data forwarding mechanism also for real time services requiring seamless Relocation of SRNS...]; figure 1), data packets duplicated from at least some of the data packets routed to the first radio cell being forwarded to a network element of the mobile communications network over which a link to the second radio cell is routed (see, in particular, page 10, paragraph 6.1.1 [...source RNC starts to duplicate DL GTP-PDUs; one copy is sent to local PDCP/RLC/MAC, and the other copy is forwarded to the target RNC.]); "Source RNC, Target RNC" in figure 1), the type of distribution and routing of the duplicated data packets being determined by the network element, without additional signalling (see, in particular, page 11, paragraph 6.1.2.1 [...target RNC should: - for lossless RABs; store all arriving DL GTP-PDUs; - for seamless RABs: discard all arriving DL GTP PDUs])).</p> <p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel (PCT Article 33(2)).</p> <p>It is pointed out that the very broad terms "distribution and routing" are not explicitly mentioned in document D1, but that in the application the terms "distribution" and "routing" are characterised by "caching", "forwarding" or</p>

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	<p>"discarding". These terms are also used in document D1 for describing the method (see, in particular, page 10, paragraph 6.1.1: "discard", "forward").</p> <p>2. The reasoned statement with regard to claim 1 in paragraph 1 above likewise applies to independent claim 6, since this claim involves the same combination of features as claim 1, in the form of a device claim.</p> <p>The subject matter of claim 6 is therefore not novel (PCT Article 33(2)).</p> <p>3. In addition, it should be noted that even if the applicant could question the objection on the grounds of lack of novelty due to minor differences between the features of claims 1 and 6 and those of the method and device described in document D1, the subject matter of claims 1 and 6 does not appear to involve an inventive step (PCT Article 33(3)) in relation to the disclosure of document D1 and to the normal professional knowledge of a person skilled in the field of call forwarding in packet-mediated radiocommunications systems and corresponding data distribution and routing methods. In this respect, it is pointed out that document D2 (see, in particular, the abstract; page 2, line 17 - page 3, line 2; page 5, line 31 - page 6, line 6; page 7, lines 13-20; figures 2, 3) also describes a method for distributing and routing data packets during call</p>

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	<p>forwarding, and in which, for a plurality of positions, at least one signal broadcast by at least one base station is assigned by the network to at least one reception field strength.</p> <p>4. Dependent claims 2-5 and 7-10 do not contain any additional features which, in combination with the features of any claim to which they refer, lead to subject matter involving an inventive step, since the features of these claims are mere developments of the method as claim 1 which <u>in principle are either</u> directly known from D1 (for claims 3, 5, 8 and 10: cf. page 11, paragraph 6.1.2.1 [...target RNC should: - for lossless RABs; store all arriving DL GTP-PDUs; - for seamless RABs: discard all arriving DL GTP PDUs]) or can be derived from D2 (see, in particular, the abstract; page 2, line 17 - page 3, line 2; page 5, line 31 - page 6, line 6; page 7, lines 13-20; figures 2, 3) or D3 (for claims 4 and 9: cf. page 11, step 8; "8" in figure 6), or represent generally known configuration variants for a person skilled in the field of methods for distributing and routing data packets during call forwarding.</p> <p>Consequently, dependent claims 2-5 and 6-10 do not meet the requirements of PCT Article 33(3).</p> <p><u>B. Further Observations:</u></p> <p>1. The application does not meet the requirements of PCT Article 6 because claims 1 and 6 are unclear.</p>

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citations and explanations supporting such statement

The expression used in claims 1 and 6, "**is determined without additional signalling**", is vague and unclear and leaves the reader uncertain about the meaning of the technical features in question. As a result, the definition of the subject matter of these claims is unclear (PCT Article 6).

It is known to a person skilled in the art that, when a call is forwarded from a first radio cell to a second radio cell, signalling information is constantly exchanged between the network elements involved until the measure is completed (for example, "Physical Information" between target BSS and MS; "PS Handover Complete"). The present description also points out that signalling information is transmitted until call forwarding is completed (cf., in particular, page 9, lines 15-16).

In light of the description, the decisions required for routing and distributing data packets are made in the respective network element **taking into account** all available information (for example, acknowledged mode; unacknowledged mode) (see, in particular, page 8, line 11 - page 9, line 16). Claims 1 and 6 would need to be amended accordingly for the above-mentioned reasons in order to overcome the objection on the grounds of lack of clarity.

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2.	Contrary to PCT Rule 5.1(a)(ii), the description does not cite documents D1 and D2 or indicate the relevant prior art disclosed therein.
3.	The expression "in particular" in claims 1 and 6 does not restrict the scope of protection of the features that follow it, i.e. the features that follow this expression should be regarded as entirely optional, leading to a lack of clarity concerning the subject matter of claims 1 and 6 (PCT Article 6 and PCT/GL/ISPE/1 - 5.40).
4.	For reasons of clarity (PCT Article 6), the application number mentioned on page 6, line 4, of the description, should have been replaced by the corresponding publication number (here: GB 2 396 998), with an indication of the publication date.